

Capacity Management, Operation, and Maintenance Program Assessment

1. By January 1, 2015, the Authority will submit a Capacity, Management, Operation and Maintenance (“CMOM”) Program Assessment to EPA and CTDEEP. The CMOM Program Self-Assessment shall be conducted in ~~accordance a manner~~ consistent with EPA’s “Guide for Evaluating Capacity, Management, and Maintenance (CMOM) Program at Sanitary Sewer Collection Systems” (the “Guide for Evaluating CMOM Programs”), included as Attachment 1. ~~For each item,~~ Provide a paragraph summarizing the status of each item identified and clearly ~~identify if the Authority plans future actions based on assessment findings.~~ The CMOM Program Assessment shall include, at a minimum, the following elements:
 - a. Training and Safety:
 - i. An assessment of the training provided to each member of the staff with duties including collection system operation and maintenance;
 - ii. An assessment of the safety equipment provided for each member of the staff with duties including collection system operation and maintenance;
 - b. Computerized Maintenance Management System (CMMS):
 - i. An assessment of procedures for the management of customer service requests, including entry and close-out of requests in the CMMS;
 - ii. An assessment of procedures for notification of work crews of customer service requests;
 - iii. An assessment of procedures for incorporating work crew observations into collection system conditions records and bypasses reports;

Commented [J1]: Modify to 6 months from date of agreement

Commented [jm2]: I’d prefer to keep these in terms of hard dates, because it is easier to keep track of. I’m willing to re-write these accordingly just before the agreement is reached. Six months for the Assessment, nine months for the Plan, Annual Report on the first February 28 that is at least a year from the agreement.

Commented [J3]: Future actions based on assessment findings will be covered in section 2. Including this language here is confusing.

Commented [jm4]: This language is important because it asks the Authority to flag issues that will be included in Section 2. The actions themselves, I agree, will be covered in Section 2.

- iv. An assessment of procedures for timely performance of and documentation of all required bypass notifications;
- v. An assessment of the Authority's programs to coordinate rehabilitation and replacement projects with information entered into the CMMS;
- c. Hydrogen Sulfide Monitoring and Control: An assessment of the comprehensive monitoring program described in the Authority's CMOM Plan.
- d. Inspections and Condition Assessments:
 - i. An assessment of the implementation of the Preventative Maintenance Program described in the Authority's CMOM Plan, including the Authority's Preventative Maintenance Program.
 - ii. An assessment of the [the Authority's programs to tabulate the](#) age, condition, materials, and last date of inspection of each element of the collection system;
 - iii. An assessment of the Authority's programs for sewer inspections;
- e. Capacity: An assessment of the [Authority's programs to evaluate the](#) capacity of critical elements of the collection system, including the Union Pump Station and other locations associated with unauthorized bypasses during wet weather;
- f. Inflow and Infiltration (I/I):
 - i. An assessment of the Authority's and [identification of the](#) City of New Haven's legal authority [to remove roof leaders, sump pumps, and other](#) drainage connections to the collection system;

Commented [J5]: For this particular item and iii below, we would identify rather than assess the City's and other jurisdictions legal authorities. Even with the prefatory language regarding paragraph/summarizing status we think this additional clarification is warranted.

Commented [jm6]: Hmmm...let me get back to you on this.

ii. An assessment of the Authority's program for removing roof leaders, sump pumps, and other drainage connections in partially separated sewer areas;

iii. An assessment of the legal authority that the Authority and identification of the legal authorities that the towns of East Haven, Hamden, and Woodbridge have to remove roof leaders, sump pumps, and other drainage connections to the sewer collection system;

iv. ~~An assessment of the Authority's use of hydraulic modeling for I/I quantification;~~

v. An assessment of the Authority's programs to control inflow of storm water at Combined Sewer Overflow (CSO) regulators;

vi. An assessment of the Authority's programs for funding and implementing I/I studies and Sewer System Evaluation Surveys (SSESs).

g. Collection System Maintenance:

i. An assessment of the Authority's programs for rehabilitating or replacing sewers to address operational problems, such as blockages;

ii. An assessment of the Authority's programs for rehabilitating or replacing sewers to address structural problems identified in inspections, condition assessments, I/I studies, and SSESs.

h. Fats, Oils, and Grease (FOG): An assessment of the efficacy of the Authority's FOG programs, including public education programs to address blockages in residential neighborhoods;

i. Pump Stations:

Commented [J7]: As above

- i. An assessment of [the Authority's program for performing](#) routine inspections and maintenance at all pump stations;
 - ii. An assessment of the Authority's schedules for comprehensive conditions assessments for all pump stations;
 - iii. An assessment of [the Authority's programs to evaluate](#) conditions for all pump stations;
 - iv. An assessment of the availability of an alternate power source at each pump station and CSO storage tank;
 - v. An assessment of the planned deployment of portable generators during a system-wide electrical outage;
 - vi. An assessment of equipment redundancy available for each pump station and CSO storage tank;
- j. Siphons: An assessment of procedures for operation and maintenance of the Authority's siphons.
- k. Force Mains: An assessment of procedures for operation and maintenance of the Authority's force mains.
- l. Easements:
- i. An assessment of the Authority's easement clearing program;
 - ii. An assessment of the Authority's program to repair, raise to grade, and permanently mark sewer manholes in easements;
 - iii. An assessment of the Authority's program to inspect gravity sewers above grade following each significant rain event;

CMOM Corrective Action Plan

2. By April 1, 2015, the Authority will submit a CMOM Corrective Action Plan to EPA and CTDEEP that includes the following:
 - a. A description of the specific short and long-term actions that the Authority is taking, or plans to take, to address any of the deficiencies identified during the completion of the CMOM Program Assessment and
 - b. A schedule for implementation of the CMOM Corrective Action Plan (the “CMOM Corrective Action Plan Implementation Schedule”).

Commented [J8]: Modify to 3 months after assessment completion

Commented [jm9]: We can tie this to the date the agreement is signed, but we can't make it conditional upon the completion of the assessment.

CMOM ~~Program~~ Corrective Action Plan Annual Report

3. Until further notice from EPA, all action items identified in the CMOM Program Assessment are fully addressed, beginning January 31/February 28, 2016, and each January 31/February 28 annually thereafter, submit a report (the “CMOM ~~Corrective Action Plan~~ ~~Program Implementation~~ Annual Report”). At a minimum, the CMOM ~~Program Implementation~~ Corrective Action Plan Annual Report shall include the following:
 - a. A detailed description of the actions taken by the Authority during the previous calendar year, or known by the Authority to have been taken by other parties, to resolve any deficiencies identified during in the CMOM Corrective Action Plan;
 - ~~b. Any other actions taken to reduce the frequency, duration, and volume of unauthorized bypasses from the Authority's collection system during the previous calendar year;~~

Commented [J10]: Modify date, probably 2017, to be consistent with other date changes.

Commented [jm11]: I don't think it's important to have a whole year of Plan implementation in place before the first annual report. I think a minimum of a year from the agreement is sufficient.

Commented [J12]: Should probably be modified to either: deficiencies identified during the **CMOM assessment process** OR any deficiencies **addressed pursuant to** the CMOM Corrective Action Plan

Commented [jm13]: Right! A typo on my part. The phrases you have in bold should each be ok.

~~e.b.~~ A summary listing of all unauthorized bypasses in the Authority's collection system. The listing shall be provided electronic spreadsheet and shall include all information from CT DEEP's Bypass Report Form, plus:

- i. A clear statement of whether the release did or did not reach any surface water;
- ii. A clear statement of whether the release did or did not reach a stormwater catch basin or any other portion of the City's municipal separate storm sewer system ("MS4");
- iii. If the release reached any portion of the City's MS4, the Authority shall provide a description of the exact location where the release reached the surface water;

~~d.c.~~ A projection of the actions that will be taken during the current calendar year to resolve any deficiencies identified in the CMOM Corrective Action Plan.

CMOM Program Manual

By October 31, 2016, the Authority will submit an updated CMOM Program Manual to EPA and CTDEEP. The CMOM Program Manual shall contain all information needed by the Authority to properly operate and maintain the sewer collection system and to minimize the frequency, duration, and volume of unauthorized bypasses from the sewer collection system and shall be based upon the Authority's 2011 "CMOM Plan"; the assessment conducted pursuant to section 1 of this agreement; and the corrective action plan developed pursuant to section 2 of this agreement. The CMOM Program Manual shall be updated periodically thereafter in an iterative manner to modernize program elements and address issues as they may arise or become

Commented [J14]: Our expectation is that we will not be starting from scratch here, but rather updating in a dynamic fashion our existing 2011 CMOM "Plan" based on the assessment to be undertaken per this agreement, the action items identified through the corrective action plan. As such we would delete the Table of Contents approach and replace with language suggested; we think it captures both the spirit and specifics of what CMOM is meant to accomplish.

Commented [jm15]: I'll have to get back to you on this. My initial thought is that the list I proposed will help us all understand the scope of the manual. The Manual does not need to literally use the list as a Table of Contents – just to include all of those topics in some fashion.

Commented [J16]: Modify date consistent with and calculated out from above changes

Commented [jm17]: Before we finalize the agreement let's make the date reflect the end of the month one year from the date the agreement is reached.

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apparent to the Authority. – The subject areas shall include, but are not limited to, the following topics (excerpted from the *Guide for Evaluating CMOM Programs at Wastewater Collection Systems*):

- Collection System Management
- Organizational Structure
- Training
- Internal Communication
- Customer Service
- Management Information Systems
- SSO Notification Systems
- Legal Authority
- Collection System Operation
- Budgeting
- Monitoring
- Hydrogen Sulfide Monitoring and Control
- Safety
- Emergency Preparedness and Response
- Modeling
- Mapping
- New Construction
- Pump Stations
- Equipment and Collection System Maintenance
- Maintenance Budgeting

- Planned and Unplanned Maintenance
- Sewer Cleaning
- Parts and Equipment Inventory
- Sewer System Capacity Evaluation—Testing and Inspection
- Flow Monitoring
- Sewer System Testing
- Sewer System Inspection
- Sewer System Rehabilitation